

Claims

1. A recording and reproducing apparatus performing recording and/or reproducing according to a helical scanning system, by helically winding a tape-shaped recording medium around a head drum and by helically scanning the tape-shaped recording medium with a rotating head, characterized in that:

5 a brake arm is disposed in proximity to a supply-side reel table with which a supply-side reel reeling out the 10 tape-shaped recording medium engages, a brake member is attached on the brake arm to be swingable and in a state where a swinging center thereof is movable, the brake member urged by an urge member incorporated on the brake arm in a releasing direction; and

15 when the supply-side reel table is driven to rotate in a direction taking up the tape-shaped recording medium, the brake member moves the center thereof and is separated from the supply-side reel table by the urge member to release a 20 brake.

2. The recording and reproducing apparatus according to claim 1, characterized in that:

25 the brake member moves in the releasing direction when the supply-side reel table is driven to rotate in the taking-up direction in a state where the brake arm is located at an active 30 position and the supply-side reel table receives a braking force by the braking member.

3. The recording and reproducing apparatus according to claim 1 or 2, characterized in that:

the brake member moves in the releasing direction when

the supply-side reel table is driven to rotate by a minute angle in the taking-up direction at a time of starting to load the tape-shaped recording medium on the head drum in a state where the tape-shaped recording medium is not taken up by a 5 take-up side reel engaging with a take-up side reel table.

4. The recording and reproducing apparatus according to claim 1, characterized in that:

the brake arm is mounted together with the supply-side 10 reel table and the take-up side reel table on a slide chassis capable of approaching and separating from the head drum; and that a pin supporting the brake member on the brake arm is located in a cut or an opening of the slide chassis.

15 5. The recording and reproducing apparatus according to claim 4, characterized in that:

the pin supporting the brake member is received in a concave cut formed on an edge of the slide chassis on a side opposite to the head drum.

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6. A recording and reproducing apparatus performing recording and/or reproducing according to a helical scanning system, by helically winding a tape-shaped recording medium around a head drum and by helically scanning the tape-shaped 25 recording medium with a rotating head, characterized in that:

a supply-side reel table and a take-up side reel table, with which a supply-side reel reeling out the tape-shaped recording medium and a take-up side reel taking up the tape-shaped recording medium engage, respectively, are 30 mounted on a slide chassis capable of approaching and separating from the head drum;

a brake lever is disposed in proximity to the take-up side reel table with which the take-up side reel taking up the tape-shaped recording medium engages, the brake lever releasing braking when the reel table rotates in a taking-up 5 direction and performing an braking operation when the reel table rotates in an opposite direction to the taking-up direction; and

restricting means for restricting the brake lever in an inactive state is provided on the slide chassis, a release 10 member is provided on a main chassis on which the head drum is mounted, and restriction of the brake lever by the restricting means is released by the release member when the slide chassis moves to a head drum side.

15 7. A recording and reproducing apparatus according to claim 6, characterized in that:

the take-up side reel table is provided with a magnet clutch and a gear; and the brake lever brakes the reel table through the magnet clutch when the brake lever engages with 20 the gear.

8. A recording and reproducing apparatus according to claim 7, characterized in that:

a brake gear engaging with the gear of the reel table 25 is provided; the brake gear and the brake lever engage with each other with friction; a rotation of the reel table is transmitted to the brake lever through the gear and the brake gear; and braking and releasing of the brake lever are performed according to a rotation direction of the reel table.

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9. A recording and reproducing apparatus according to claim

8, characterized in that:

the brake lever and the brake gear are mounted on the slide chassis through a brake holder; and the brake holder abuts against the release member on the main chassis to release
5 the restriction of the brake lever by the restricting means when the slide chassis moves to the head drum side.

10. A recording and reproducing apparatus according to claim 9, characterized in that:

10 the brake lever is urged in a direction in which the brake lever is turned to be in the inactive state by the restricting means through the brake holder; and the release member swings the brake holder in the releasing direction against the restricting means.
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11. A recording and reproducing apparatus according to claim 9, characterized in that:

the restricting means is a helical spring supported by a supporting member on the slide chassis; and the brake lever
20 is urged to swing in the direction to be inactive state by a free end of the helical spring.

12. A recording and reproducing apparatus performing recording and/or reproducing according to a helical scanning system, by helically winding a tape-shaped recording medium around a head drum and by helically scanning the tape-shaped recording medium with a rotating head, characterized in that:

a tape cassette wound with the tape-shaped recording medium therein is moved in a direction of approaching the head
30 drum by a slide chassis to perform the recording and/or the reproducing by the tape-shaped recording medium pulled out

from the tape cassette;

5 a reel brake braking a reel wound with the tape-shaped recording medium in the tape cassette is provided, the reel brake performing a braking operation when pulling out the tape-shaped recording medium from the reel, the reel brake releasing the braking operation when taking up the tape-shaped recording medium;

10 restricting means for restricting the reel brake by coercively releasing the reel brake during a movement of the slide chassis equipped with the tape cassette is provided on the slide chassis; and

15 release means for releasing restriction by the restricting means when the slide chassis equipped with the tape cassette moves to a head drum side is provided on a main chassis mounted with the head drum.

13. A recording and reproducing apparatus according to claim 12, characterized in that:

20 the reel brake performs the braking operation and the release the brake operation according to a rotation direction of the reel.

14. A recording and reproducing apparatus according to claim 12, characterized in that:

25 the reel brake is disposed in proximity to a take-up side reel table.